MEMORANDUM

To: Jere Johnson, EPA Region IX

From: Laura E. Pantaleno, URS Consultants, Inc.

Through: William E. Ritthaler, URS Consultants, Inc. WR

Subject: Stauffer SI Report

Date: May 20, 1993

DCL No.: 62210.28.33.770 01

cc: Sherry Nikzat, EPA Region IX Project Officer
Jeri Simmons, EPA Region IX Contract Officer

Enclosed please find the revised Stauffer SI report and EPA's comments on the previous version. EPA did not return appendices D and E (Sample Plan and Analytical Data). If they are not at EPA's office, let me know, and I will send you another copy.

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ZENECA

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April 8, 1993

Rec'd 4.9.93

Ms. Rachel Loftin
Site Assessment Manager
United States Environmental Protection Agency
Region IX
EPA Mail Stop H-8-1
75 Hawthorne Street
San Francisco, CA 94105

FILE

Re: Zeneca Inc., Richmond Facility

ICI Americas / AKA: Stauffer

Dear Ms. Loftin:

We have reviewed EPA's Preliminary Assessment report (the "Report") dated June 29, 1992 regarding the CERCLA evaluation of the Zeneca Agricultural Products plant at 1415 South 47th Street, Richmond, California. We have several comments regarding the Report, primarily directed at correcting factual inaccuracies and unsupported assertions. For example, we believe that EPA has confused the former Stauffer facility now owned by Zeneca in Richmond, with another former Stauffer facility in Martinez which is currently owned by Rhone-Poulenc. We are concerned that this confusion has resulted in factual errors in the text of the Report, and perhaps in the Report's conclusion that there are HRS factors pertinent to the site.

We have proposed revisions to those paragraphs of the Report which we believe are inaccurate or unsupported. We have attached a copy of the Report and assigned a number to each paragraph. Our comments, set forth below, reference these paragraph numbers.

Paragraph No. 3.

We note that the Report does not contain a clear description of the site that is under investigation by EPA. As stated in the Report, *1200 South 47th Street and 1415 South 47th Street are separate sites. * The Zeneca Western Research Center is located at 1200 South 47th Street, and the Zeneca

* they were aggregated for the SI eval.

Agricultural Products plant is located at 1415 South 47th Street. The CERCLIS list and handwritten notes on the Report state that the research facility located at 1200 South 47th Street has been examined by EPA and has been designated "No Further Action" under the CERCLA program. Accordingly, Paragraph 3 should be revised to make clear that EPA has designated the 1200 South 47th Street "No Further Action" under the Superfund program, and that the current investigation pursuant to CERCLA is directed only at the Zeneca site located at 1415 South 47th Street.

Paragraph No. 5.

Paragraph No. 5 states that the site borders the San Francisco Bay. This is incorrect. The site borders a tidal marsh which communicates with San Francisco Bay through a channel in a railroad embankment. The site does not border San Francisco Bay proper and this statement should be corrected.

Paragraph No. 7.

Paragraph 7 states that the site was formerly operated by the Mountain Copper Company. We are not aware that Mountain Copper Company owned or operated the site, nor are we aware of any copper smelting operations at the site. We believe EPA has confused the ICI Richmond site with a plant in Martinez formerly owned by Stauffer. The Martinez plant, currently owned by Rhone-Poulenc, was previously owned by Mountain Cooper Company and was used for copper smelting.

In addition, Paragraph 7 states that in 1986, Chesebrough-Ponds purchased the site from Stauffer. This is incorrect.

To address these two inaccuracies we suggest that Paragraph 7 be revised as follows:

> In 1897, Stauffer purchased the site and by 1906 had begun chemical production operations. Stauffer produced a variety of industrial and agricultural chemicals at the site until 1985. In 1985, Chesebrough-Ponds purchased Stauffer. In 1986, Unilever Corporation purchased Chesebrough-Ponds. In 1987, the former Stauffer plants were purchased by ICI Americas Inc. from Unilever. ICI has recently been divided into two companies, the name of the company containing the Agricultural Products division--and the Richmond site--is Zeneca Inc.

Paragraph No. 8.

Paragraph 8 does not cite any authority for the estimate that 100,000 gallons of untreated wastewater was released to the tidal marsh on a daily basis during that period. Further, paragraph No. 8 states that "between 1906 and 1974, wastewater was not treated prior to release to the tidal marsh." We do not believe these statements are correct, and we note that the report does not cite any authority for the statements. Perhaps these statements refer to the former Stauffer facility in Martinez.

Cite reference or correct as appropriate

With respect to the Richmond facility, prior to 1971 when the fertilizer operation was shut down, Zeneca is aware that effluent from the Stauffer fertilizer operation was neutralized with lime, and suspended solids were removed prior to discharge. This treatment of the fertilizer effluent had been done for some time prior to 1971. In addition, wastewater from the Alum plant was treated in settling ponds prior to discharge. Paragraph 8 should be amended accordingly.

Get reference material from James Correct as appropriate

Paragraph 8 also states that the wastewater discharge system was overhauled in 1987. The wastewater discharge system was actually reconfigured in 1989. The paragraph states that runoff in excess of the 4 million gallon surge capacity during heavy storm events is designed to be discharged to the tidal marsh rather than to the POTW. However, we note that although discharge to the tidal marsh is permitted during heavy storm events under the NPDES permit, such discharge has not been necessary since the system was reconfigured in 1989, despite heavy rainfall during the 1992-1993 winter. We think that this is a significant point, which should be added to Paragraph 8.

Paragraph No. 9.

Paragraph 9 states that there have been several settling pond overflow incidents at the site between 1960 and 1987, and that wastewater discharged to the tidal marsh during these overflows contained Eptam, Sutan, Tillam, Ordram, Devrinol, Vapam and toluene. Although we have not been able to locate one of the references cited in the Report, the references we have reviewed only describe overflow incidents in late 1985 and early 1986, which resulted from mechanical failure followed by extraordinarily heavy rainfall. We would appreciate receiving a copy of EPA's reference 4. If that reference does not cite other overflow incidents from 1960 to 1987, Paragraph 9 should be amended to clarify that the overflow events did not occur routinely from 1960-1987, but rather occurred during the winter 1985-86 because of peculiar circumstances.

USGS is sending this.

1. Get reference from Zeneca. Correct, if appropriate

We also note that during the winter of 1985-86, Stauffer was not producing Eptam, Sutan or Tillam.

The historic settling ponds have all been cleaned out and lined with 60 mil HDPE liners, and are now used as surge ponds. Therefore, the contaminants referenced in the Report are no longer found in the "settling ponds."

Paragraph 9 states that organophosphates have been detected in the evaporation pond sediments. We know of no data identifying the presence of organophosphates in the evaporation pond sediments. → Cite reference if not already cited

Further, we think it is noteworthy that the water flowing through the evaporation ponds, and tested at Outfall 001 pursuant to Zeneca's NPDES permit, meets the stringent effluent limits for the metals and organic compounds that Paragraph 9 asserts are found in the evaporation pond sediments. EPA can verify this by reviewing the NPDES monitoring reports for Outfall 001, and the monitoring reports to the POTW since 1989, when the 001 discharge was rerouted to the Richmond Sanitary sewer.

In addition, Zeneca has conducted several studies of the sediments in the evaporation ponds. The sediments have been extensively tested for any toxic effects on potential receptors. In 1986, a study was conducted to determine the effect on sensitive benthic organisms exposed to the pond sediments (1). The report concluded that the pond sediments had no effect on sensitive benthic organisms. In 1986, Zeneca conducted a second study to determine whether feeding the sediments to ducks would have any toxic effects (2). Again, the study showed no toxic effects to ducks. This information is relevant to any consideration of potential environmental risk posed by the evaporation ponds. Finally, we note that the data in Paragraph 9 regarding evaporation pond sediments may have been generated as part of the assessment of the ponds required by the California Toxic Pits Cleanup Act (TPCA). The study concluded that the evaporations ponds were not subject to TPCA. We believe that this information should be presented in the Report in place of the blanket statements regarding contaminants in evaporation pond sediments which are currently found in Paragraph 9.

Did anyone at DTSC think that these weren't going to be regulated under TPCA? If so, indicate.

Paragraph No. 10.

Paragraph 10 states that several documented fish kills have occurred at the site. Long-time site employees can remember

only one fish kill at the site, which occurred as a result of a one-time operational error. We do not have a copy of EPA's reference 7. Unless that reference refers to other fish kills at the site, EPA should correct Paragraph 10 to make clear that there was only one fish kill at the Richmond site.

Zeneca has achieved an exemplary record on monthly fish bioassays for wastewater discharged through Outfall 001. These tests were conducted on undiluted effluent from 1974 until 1989, after which routine discharge though Outfall 001 was rerouted to the POTW. From 1974-1984, tests were conducted using the stickleback species. Beginning in 1985, these bioassays were conducted using stickleback and a much more sensitive salmonoid species. Out of all the bioassays over a 15-year period, only one fish out of a total of more than 8000 fish died, apparently a spurious occurrence. EPA can verify this by reviewing the NPDES monthly monitoring reports from 1974-1989.

Table 1.

Table 1 lists "Potential Sensitive Species Near Stauffer Chemical Company," but does not cite any authority for the fact that these species have actually been sighted near the facility. If EPA has authority for stating that these sensitive species exist near the site, that authority should be referenced. Otherwise, Table 1 should be revised to list only those sensitive species which have actually been sighted near the facility.

Paragraph No. 11.

Paragraph 11 states that cinders from copper smelting activities at the site were landfilled on site. Again, copper smelting was not conducted at the site, and this sentence should be corrected. Paragraph 11 also states that the cinder landfill is located adjacent to "another tidal marsh north of the site." There is a tidal marsh near the cinder landfill at the Zeneca property, however that marsh is not north of the site. As noted in the comments regarding Paragraph 7, it appears that this statement may reflect confusion between the Zeneca Richmond site and the former Stauffer site in Martinez. At the Martinez site, there is, in fact, a tidal marsh north of a cinder landfill, and the cinders are from a copper smelting operation. This paragraph should be corrected.

Paragraph No. 12.

Paragraph 12 states that a Cease and Desist Order was issued to ICI regarding an NPDES violation in February 1988.

Paragraph 12 implies that the Order was issued in response to a 1986 bypass incident (discussed above). The Cease and Desist Order was not related to this bypass incident.

The Order was simply an administrative means for the RWQCB to amend the permit-dictated timeframe for completion of ongoing studies related to Stauffer's request for an exception to the requirement to install a deep-water outfall, and did not represent a violation of effluent limitations. This was not a contested matter, and there was no intent on the part of the RWQCB staff to pursue punitive actions with respect to this Order.

As part of its request for an exception to the deep-water outfall requirement, Stauffer conducted several studies, including the studies discussed above as references (1) and (2). At the time the Cease and Desist Order was issued, the studies in progress also included an environmental assessment of the ponds and receiving waters (3) and a chronic in-situ bioassay for survival of fish in the ponds (4). Copies of the reports are enclosed. The results of these studies were quite positive, showing a healthy environment in the ponds and marsh. In spite of these positive results, the RWQCB staff ultimately did not support the request for continued routine use of Outfall 001. Stauffer opted to reroute the discharge system for Outfall 001 to the POTW in lieu of installing a deep-water outfall. The Order was rescinded by the RWQCB at that point.

In light of these facts, the last sentence of Paragraph 12 should be deleted, and Paragraph 12 should be amended to make clear that the Cease and Desist Order was not issued in connection with a violation of any NPDES effluent limitations. If the Order is mentioned in the Report, the circumstances should be explained and the administrative nature of the Order should be highlighted.

I agree. Let's discuss this at SI.

Paragraph No. 13.

Paragraph 13 lists three HRS factors which are allegedly pertinent to the site, including that "a release of contaminants attributable to Stauffer Chemical Company has been documented to the tidal marsh adjacent to the site." As stated with respect to Paragraphs 8 and 9 above, we believe the statements regarding overflow incidents and releases of untreated wastewater to the tidal marsh are incorrect. EPA must reconsider whether the first HRS factor listed in Paragraph 13 is still pertinent to the site, given the inaccuracies upon which this conclusion was based.

1. Use Paul's guidance memo on use of "Obs Release" i.e. EPA definition.

Paragraph 13 also states that an HRS factor pertinent to the site includes the fact that habitat for nine federally protected species exist in the adjacent tidal marsh. As discussed with regard to Table 1, above, the report does not cite any authority for locating the sensitive species listed in Table 1 at the Zeneca site. Therefore, the statement in Paragraph 13 with respect to protected species should be removed.

Cite reference

Finally, Paragraph 13 states that an estimated 100,000 gallons of untreated wastewater were released to the tidal marsh daily between 1906 and 1974. As discussed above in Paragraph 8, the report does not state any authority for the volume of effluent that was discharged per day, and more importantly, the report is incorrect in stating that this wastewater was untreated. Therefore, this statement should be removed from the summary. Accordingly the alleged HRS factors which EPA has cited as pertinent to the site are not accurate, and it therefore appears that there are no pertinent HRS factors with respect to the site.

Cite reference 1. Verify 2. that water was treated If so, cite

* * * * *

We believe the Report confuses two former Stauffer facilities--one in Richmond and one in Martinez. This confusion is the basis for several unsupported assertions about the location and operations of the Richmond site. This confusion also calls into question many of the other statements in the Report, as well as the Report's conclusion that there are three HRS factors pertinent to the site. Given the inaccuracies in the Report, and particularly since the Report makes many unsubstantiated statements regarding alleged releases of contaminants from the site, we do not believe that the Report can serve as a credible tool in ranking the Zeneca site pursuant to the HRS.

Needs to be researched

Please do not hesitate to call me if you have any questions regarding our comments.

Very truly yours,

John E. Riley

John E. Riley
Plant Manager

Enclosures